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A BRIEF HISTORY

OF

THE ORGAN

IN THE

CHAPEL OF

TRINITY COLLEGE, CAMBRIDGE

BY

G. F. COBB, M.A.

*Formerly Fellow and Junior Bursar.*

EDITED BY

ALAN GRAY, LL.M., MUS.DOC.

*Organist.*

CAMBRIDGE :

FABB AND TYLER, LIMITED.



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THE ORGAN BEFORE 1870,

A BRIEF HISTORY  
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## PREFACE.

THE renovation of the Trinity Organ is a fitting opportunity for the reissue of the late Mr. Gerard Cobb's "Brief History," originally published in the *Trident* (July, December, 1890), a Trinity College Magazine which appeared from June, 1889, to December, 1891. The "Brief History" was subsequently issued as a pamphlet. Mr. Cobb (1838-1904) was a prominent musical amateur and a prolific composer, many of his songs, especially his setting of the "Barrack Room Ballads," having attained great popularity. As Junior Bursar of Trinity from 1869 to 1894, he took a warm interest in the improvements of the organ in 1870 and 1890, and devoted much loving care to the details of the work done. His pamphlet is of considerable historic interest, and his suggestion as to the origin of the phrase "Chaire" organ is, I believe, original, and is now generally accepted as well founded. The pamphlet is also probably one of the earliest specimens of the historical accounts now usually printed on such occasions as the present one. It is reprinted verbatim with the exception of a detailed account of the 1890 restoration and a few sentences referring thereto. I have added a description of the work just completed. I am indebted to Dr. Fletcher for calling my attention to the passage quoted in the note on p. 16. It throws an interesting light on Smith's social position. The photograph showing the organ before 1870 was kindly given me by Mr. B. B. Bales, F.R.C.O.

A. G.

Jan., 1913.





## THE CHAPEL ORGAN.

I have been applied to by the Editors of the *Trident* to furnish them with some remarks on the Chapel Organ, and gladly comply with their request. The subject is not altogether an easy one to treat in a magazine article intended for general reading, for it is hardly possible to be accurate without using terms which have a special and technical meaning. It will be my endeavour to avoid technicalities as far as possible ; at the same time I can hardly be expected to write with that comfortable indifference to the true signification of words which seems so generally to influence both speech and pen whenever music is under consideration, and which not long ago induced the special correspondent of a leading daily paper to describe a big organ then in course of erection as "a stupendous structure, with its marvellous ramification of fugues and diapasons."<sup>1</sup>

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<sup>1</sup> There is perhaps hardly any subject in which such ludicrous mistakes are constantly being made by literary authors as in music. Writers of even the highest repute venture (perfectly gratuitously) into the domain of musical terminology without the slightest trace of any misgivings as to the result. A few instances from the pages of some of our best writers of fiction may amuse the musical reader. 'George Eliot' is a conspicuous offender in this matter. In one of the many unpleasant scenes between Grandcourt and Gwendolen, the former is represented as breaking off the conversation and then resuming it as "after a long organ stop"; (Daniel Deronda, edition 1876, Vol. III., p. 362) as if an organ stop meant a pause in an organ performance. In "The Mill on the Floss" (pp. 339, 340 of the one volume edition) she represents the lovers Stephen and Lucy as singing a duet in a "perfect accord of descending thirds and fifths" with a lot of other hopelessly misapplied phraseology ; (see also *ibid.* p. 371).

Charles Reade at the end of Chapter II. of "The Cloister and the Hearth" innocently ventures on a musical quotation set up in musical type, with the result that a melody in one key is prefaced by the signature of another, whilst its rhythm, which is that of three crotchets in the bar, is indicated by the figures  $\frac{3}{4}$ . As regards the key-signature the copy of the book in the Union Society's Library to which I have just referred to verify my recollections of the case affords a beautiful illustration of proverbial dangers, for some "fool has rushed in" with his indignant pencil, and having just the "little knowledge" to see that something was amiss, has supplied the passage with another key-signature even wider of the mark still.

It scarcely needed a keen sense of the sanctities of the Scotch Sabbath to justify "Leezibeth's" resentment of "Coquette's" per-

formance of "Mozart's Sonata in A sharp," which we are told despite its appalling signature "she was playing carelessly enough," (A Daughter of Heth, 11th edition, p. 24); neither does it seem necessary that we should be informed that the music had a strange distance and unearthliness about it," and that "the Whaup had never heard anything like it before": and so passionately attached is Mr. William Black to this monstrous creation of his musical ignorance that we are again favoured with it in "Kilmeny," where the hero (p. 75) wonders whether Miss Lesley "would only express a faint surprise on hearing Mozart's Sonata in A sharp."

It has been reserved for Mr. Gunter (the author of "Mr. Barnes of New York") to furnish us with an entirely new variety of violin. In his last book ("That Frenchman," page 56) the eyes of Louise are described as betraying "the anxiety of some great strain upon the mind, something that keeps her nervous system at a constant unrelaxing tension, that makes it like the C-string of a highly-tuned violin."

Apropos of organs in particular a good story is told of a churchwarden who was deputed by the vestry to select one among a number of competitive specifications for a new organ for his church, and who thinking that the phrase "to Tenor C" implied an extension rather than contraction of compass selected the one in which it occurred with the greatest frequency, under the idea that he would be getting most for the money. The organ-builder, on hearing of this, naturally enough professed his readiness to let him have a few more of the stops made "to Tenor C" for the same estimate.

(I am unable to resist the temptation of adding to Mr. Cobb's amusing list of novelists' dealings with music, even though the matter has nothing to do with the subject of this pamphlet. The extract is from Ouida's "Signa." Signa is a musical genius of a peasant boy. He saw an old pearwood violin in a shop, "took it down, and began to make the strings sound, not knowing how, but finding the music out for himself as the young Pascal found the science of mathematics. Sweetest sounds dancing the air like butterflies, etc." Signa finally manages to buy the violin. His master, Bruno, "who had a melodious ear (!) listened aghast—the music was never wrong in a chord: it was sweet as all the nightingales in the country singing all together. The owls cried 'Woe' from the great walnut trees over the house roof, the sweet melody seemed to fill the place with wonder, and to live in the quivering rays of the moon, and to pass out with them through the lattice among the leaves, and so go straight to the stars."

Bruno does not approve of all this music, and "set his heel on the violin, and stamped it down again and again as if it had been a snake. The bruised wood cracked and broke under his heel; a single string snapped with a shrill, sad, shivering sound, like the sound of some young thing dying. . . . All night Signa tried to mend his shattered Rusignuolo. It was quite useless. The wooden shell he could piece together very well, but the keys were smashed beyond all chance of restoration, and for the broken silvery strings there was no hope. . . . His heart was oppressed with a vague yearning, such as made Mozart weep, when he heard his own *Lacrimosa* chanted."

Poor Signa has to take to the mandoline, on which he "struck a few broad, sweet chords . . . just a few chords in the minor key, sad and soft, and almost solemn."

He hardly appears to have fulfilled the promise of his youth, for music does not play much part in his subsequent adventures, though we learn incidentally that "they were giving his music at Como, and they were about to bring the *Lamia* out in Milan." A.G.)

Neither again will it be desirable to over-burden the text with too frequent references to the exact chapter and verse of my authorities.<sup>2</sup> No statements, however, shall be made in the course of this article as statement of fact except such as I have the means of thoroughly establishing. Wherever my materials are in the least degree imperfect or ambiguous, they will be referred to in terms of proper qualification.

Mr. Sedley Taylor has an excellent story of a native waiter at the Bernerhof, who, on being asked one day whether there was going to be a recital on the big organ in the Cathedral at Berne, replied: "No, Sir; the organ, Sir, she is sick"! It is now ten months since our organ first passed (on Monday, July 15, 1889) into the doctor's hands, and the feeling of congratulation on its long-delayed recovery must, one would think, be universal. Thanks to the efforts of our Choir and the pains taken with them by our Organist and his Coadjutor, as well as to the energy and vigilance of our Precentor, our Choral Services have been throughout not unworthy of the College; still our Choir is not, numerically speaking, strong enough for much unaccompanied singing, especially on occasions when the chapel is full and its resonance proportionately impaired; and we have had moreover a particularly adverse season to contend with in the matter of bronchial epidemics. The College has indeed in years past seen worse times, when choir as well as organ were

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<sup>2</sup> The chief, if not the only sources of information, as to the history of our organ are (1) the "Conclusion Books" or records of the decisions of the Master and Eight Senior Fellows who were until recently the Governing Body of the College, (2) the Account Books of the Officers of the College, and (3) the College Register or transcript of all documents to which the Seal of the College had to be attached. Mr. Forsyth has kindly assisted me in making extracts from some of these books, and between us we have I think managed to collect pretty nearly all the information procurable on this subject, at any rate since the Restoration. I am also greatly indebted to Mr. J. W. Clark for kindly lending me his collection of Memoranda made at the time when he was preparing his great work on the Architectural History of the University and its Colleges, a work the full value of which can hardly be appreciated except by those who have had themselves to make search in our old documents, and who have been privileged to see with what laborious care and accuracy Mr. Clark's investigations have been carried out. Mr. Clark has in fact anticipated much of what I have to say, and although I may be able to add a few new features to the story, the chief work left for me to do is to weave into something like a connected history the various points about the organ already introduced sporadically and incidentally into his pages.

silenced, for we find that on August 12, 1625, the Master and Seniors "concluded" as follows :

"Y<sup>e</sup> by reason of suspicion of daunger of y<sup>e</sup> plague<sup>3</sup> increasing and y<sup>e</sup> neare dwelling of one of the singing-men to y<sup>e</sup> place suspected, y<sup>e</sup> Quire for a time should breake up and intermitt their attendance in the Chappell on Sundaies, Holydays, and Halfe Holydaies."

and it was but a few years later that our organ was "sick" even unto death,<sup>4</sup> and our Choral Services entered on that twice nine

<sup>3</sup> The Conclusion Book at this period bears frequent testimony to the sad interruption to College life occasioned by this "Visitation" as it was called. On April 26, 1630, it was agreed "that the whole Societie of this Colledge should breake up, and Commons in the Hall to cease upon Fridaye next which is to be the 30 of this moneth, and that betweene this day and that every one whatsoever to provide for himself and to depart the Colledge, and to provide that wheresoever they live they must not expect ingress and regress into the said Coll: till it please God to lessen or remove the greate danger in which we live." The Master, the Vice-Master, and two Bursars, and a few Seniors stayed "for the conversation and possession of the Colledge" with a minimum staff of servants among whom "the College Landerer" is specially mentioned. Commons in Hall were apparently not resumed until November 20, full six months after their very abrupt discontinuance.

<sup>4</sup> Senior Bursar's Accounts 1643:

"To George Woodruffe for taking downe y<sup>e</sup> organs and hangings." xv<sup>a</sup>.

"To Mr. Jenings for taking downe y<sup>e</sup> organ pipes." xlv<sup>a</sup>.

What a lamentably dehumanising influence this cessation of our Choral Services speedily exercised even upon Scholars of the House, is well exemplified by the following entry in the Conclusion book:—

"1643, August 1<sup>o</sup>. Agreed upon by the Vice-Master and the rest of Seniors that Carrill should bee punisht a monthes Commons for offending against the Statute of *Modestia Morum*."

"Agreed at the same time that Pepys besides a monthes Commons should have an admonition and pay the charges of the Chirurghion for the healinge Carril's heade which hee broke with a key."

Even poetic natures, usually so securely nourished in their own sweetness and light as to be indifferent to vicissitudes of surrounding, were found to be unequal to the strain of this terrible time of artistic famine, and we learn that the spirit of great Dryden was soured into ungenial courses:

"July 9, 1652. Agreed then that Dreyden be put out of Commons for a fortnight at least, and that he goe not out of the Colledg during the time aforesaid, excepting to Sermons, without express leave from the Master or Vice-Master, and that at the end of the fortnight he read a confession of his crime in the hall at Dinner-time at the three Fellowes tables.

"His crime was his disobedience to the Vice-Master and his contumacy in taking of his punishment inflicted by him."

With regard to the following Conclusion it might perhaps be questioned whether it does not point as much to the growth of a Puritan sposition in the Governing Body (newly leavened by the intrusion o



years of Puritan eclipse so grimly prefaced by the entry in the Senior Bursar's Accounts (for 1643) :

"To Chambers for not blowing y<sup>e</sup> organs a whole year xl<sup>s</sup>."

A Laudian enthusiast might perhaps have regarded this as a fitting punishment for "malversation" with regard to the choir. For whereas the Statutes of that day required the College to maintain "ad sanctum Dei cultum pie et religiose quotidie in Collegio exequendum" 4 Chaplains, 6 Singing-men or Lay-Clerks ("Clerici seculares"), and 10 Singing-Boys ("pueri Symphoniaci qui Choristæ nominentur"), it seems that the College was sufficiently "advanced" to put a fairly liberal interpretation upon its Statutes. At least, that is the only explanation that I can venture to offer of a curious expression of somewhat frequent occurrence in the Conclusion Book of that time, viz., "a *drie* Chorister." It would seem that the emoluments of the "Chorista" of that date were considerable; they were apparently better than those of a Sizarship, and almost if not quite equal to those of a Scholarship. The "Master and Seniors" at that time were in the habit of electing into vacant chorister-ship students who had even taken their Bachelor's degree, and who therefore, making full allowance for the juvenile age at which the Trinity undergraduate of that day matriculated, could not have been of any use as Singing-Boys.<sup>5</sup> That in their

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Parliamentary nominees) as to the deterioration of undergraduate behaviour.

"July 17, 1646. Agreed then by the Master and Seniors in consideration of the Sophisters' pronenesse to unsufferable Abuses which arise by the permission of Salting nights. That from henceforth all such meetings whatsoever of any Sophister or others be wholly layd aside, And that they carry themselves in all Civilitie and without any noyse or humminge upon those nights which were formerly so called, repayreing to theyre Chambers and Tutors as upon other nights, Conforminge themselves in all particulars to the rule prescribed them in Statute entituled de modestia morum." (For an explanation of these "Salting Nights" see Mullinger, Vol. II., page 400).

<sup>5</sup> A reference to the Senior Bursar's Accounts in a particular case will illustrate this. Comparing the Conclusion of October 20, 1614, with that of November 13, 1615, we find that the Choristership held by Prentice was "a *drie* Chorister's place." The Accounts for 1611, 1613, and 1617 are missing, but in those for 1610 Prentice appears as a Sizar, in 1612 he appears as a Chorister, being then in his third year of residence at least and presumably therefore too old for a singing boy. In 1614 he still appears as a Chorister although he had taken his Bachelor's Degree, and he continues as such, until Michaelmas, 1616, when we may fairly assume he proceeded to his Master's Degree.

weaker moments the Seniority suffered some qualms of conscience in the matter is obvious from the Conclusion No. 4 of March 29, 1613 :—

"That whereas we have agreed upon an order never hereafter to choose any drye quirister into a quirister's place: yet for this once and no more, we have dispensed with this order and have chosen Tho. Ritcher (*sic*) drye quirister."

And accordingly we find "Richard" (*sic*) on May 3, ordered

"Actually to come in Sr<sup>6</sup> Wilson's place, and Peake chosen in to be quirister potentia to sing in y<sup>e</sup> meantime and if his voice hold to enjoye it, till it fayle."

But this weak-kneed'd repentance was as short-lived as it was unavailing, for on June 2 of the very next year stronger counsels prevailed, and "Smith, senr., Mr. Cheeke's pupill," was "chosen dry chorister to take place the next that falls," and we have similar appointments at intervals up to the time of the following famous entry :—

"March the 30, 1636. It is ordered by the Master and Seniors in the Chappel the 30th of March, 1636, that Abraham Cowley is chosen into a drie chorister's place in reversion, and that the Colledge shal allowe him the benefitt thearof till it fall, or that he be chosen scholler att y<sup>e</sup> Election of Schollers next following."

Happily, no doubt, for the Choir, Cowley remained in it but fifteen months, for he was "chosen and admitted Scholler by the King's letters dispensatory on 1637. Junii 14."

It would be wrong to assume that the College was altogether indifferent to the claims of the Choral Service, for we have plenty of entries implying a due regard to vocal qualification, and on one occasion (1628. Martii 21) not only was "Warner chosen into a Quirister's place being voyd," but "at the same

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The following Conclusion also aptly illustrates the conditions as regards age and circumstance of these appointments. "1629, Jan. 5. Then also it was agreed that Nath. Willis, being at the time of the last election of Scholars hindred by sickness from being then present in the Coll: and one of good hope both for his manners and learning, and above five years' standing since his admission, shold be and also is chosen this day at the sole instance of the L<sup>o</sup>. Duke of Lenoux a Querister extraordinary, yet so as this Act shall not be taken as president for the others hereafter. L. Bath & Wells."

<sup>6</sup> "Sr" i.e. Sir, was at this time the vernacular prefix used to imply that the Bachelor's Degree had been taken.

time were chosen probationers for the Chorus, Edmons, Nitingale, Marrett and Baily ; upon condition that he whose voyce and skill were fittest for y<sup>e</sup> quire when any place fell voyd, should be chosen into it."

The above extracts, however, all seem to me to point to the conclusion that the "Choristae" of that period were not *all* "pueri symphoniaci" as the Statutes required, but that they were divided into those who were "drie" and those who were not ; and that in contradiction to the more melancholy experience of recent times (with regard at least to adult singers) it was those who did *not* sing that were habitually "dry," rather than those who did.

Under the Commonwealth compliance with the Statutes was in several important particulars made impossible, and on February 23, 1645, we find that no less than eight "commencing Bachelors" were made Choristers, obviously on a "dry" footing, and a few years later (Jan. 17, 1654) it was ordered

"That the Choristers shall bee examined and chosen at the same time and in the same manner with y<sup>e</sup> Scholers of y<sup>e</sup> House."

It is significant to note that this last resolution which, considering the peculiar circumstances of the time, was a most laudable one, did not precede but succeeded (by just 12 months) a resolution (January 24, 1653) appointing as chorister "with immediate enjoyment of all profits and emoluments thereof Thomas Arrowsmith our M<sup>r</sup>s son," a piece of scandalous jobbery on the part of the Puritan Council such as we may hope formed the subject of a question even in a Puritan Parliament.

But it is time to return to the Organ. Little need be said of our pre-Restoration Organs, as it is quite certain that whatever "original elements" our present organ may still contain, it can set up no claim to be their successor except in a purely chronological sense. The first organ used in our present Chapel was one which had been already in use in the old chapel (of King's Hall) and was moved into it in 1563. In 1594 one Hugh Rose was employed to build a new organ which was completed in 1596. In 1610 John Yorke repaired and improved "the ould orgaine," and also made "a new

chaire<sup>7</sup> orgaine." In 1615 and again in 1621 Stephen Brittain did some extra work to the organs. In the year 1635 "Mr. Dallam" appears on the scene. His is a name of considerable note in the history of organ-building. I have not come across any entry in our books in which his Christian name occurs, but it is reasonable to assume that he is "Robert Dallam" who had just about this time built organs for Canterbury, York and Durham Cathedrals. The "Thomas Dallam" who built the organ in King's Chapel just 30 years previously (the case of which practically remains to this day) was his father, from whom he no doubt inherited the care of the King's Organ, and on this account was selected by the College to take our own in hand. This is a most interesting period in the history of our Chapel, when the Chapel "furniture," &c., was ordered according to Cathedral usage,<sup>8</sup> the Chapel beautified and adorned, and the presence of dogs no longer tolerated.<sup>9</sup> Two relics of this short-lived and ill-fated "Catholic Revival" survive in the shape of two gilt flagons, still in use, which were presented to us in the year 1636<sup>10</sup> by John and Bernard Stuart, the two pleasant-looking youths whose picture, probably taken about the time they were here, some of us may have noticed in the Stuart Exhibition last year.<sup>11</sup>

<sup>7</sup> The explanation of this phrase "Chaire-Organ" is reserved for a Note in Appendix A.

<sup>8</sup> Conclusion, "June 15, 1635, agreed by y<sup>e</sup> Mr. and y<sup>e</sup> Seniors to set o<sup>r</sup> Communion-table in o<sup>r</sup> Chappell as it is in Cathedrall Churches and Chappells, at y<sup>e</sup> upper end, and y<sup>e</sup> ground to be rayseed; and y<sup>t</sup> y<sup>e</sup> Chappell be adorned accordingly." See also Conclusion of January 14, 1637.

<sup>9</sup> Senior Bursar's Accounts, 1637:

"To him that should keepe dogges out of y<sup>e</sup> Chappell." xxvj<sup>s</sup>. viij<sup>d</sup>.

<sup>10</sup> The Hall-mark of the flagons is 1607.<sup>1</sup> They form two of (only) 4 pieces of Plate now in possession of the College which survived those "troubulous times." The other two pieces are the "Nevile" Cup (Hall Mark, 1615), and a Bason & Ewer (1635) presented to "the Bursar's Table" by one of the Senior Fellows named Ambrosius Aykerod then Bursar.

<sup>11</sup> Lords John and Bernard Stuart were younger brothers of James Stuart, fourth Duke of Lennox and first Duke of Richmond. They both died in 1645 fighting for Charles I. In the Small Combination Room there is a mezzotint engraving by McArdeall, after the magnificent portrait painted by Vandyck and recently lent to the National Gallery by Lord Lucas.—A. G.



The sums paid to Mr. Dallam do not indicate that he did much more than thoroughly overhaul, clean and repair the existing organ, but he was afterwards permanently engaged at an annual salary to tune and look after it. Two entries of "Sackbuts" purchased for the Chapel at this period furnish an opportunity of mentioning that it was not unusual at that and subsequent times to supplement the organ with other instruments, and in the College records I have found entries at different periods of representatives of the three chief constituents of the modern "orchestra," viz. : string, wood, and brass instruments.<sup>12</sup>

Mr. Dallam was not so fortunate as Chambers the blower, and received no payment for "not" tuning the organ during the period of its dethronement, neither did we employ him at the Restoration, most probably because he was then busily engaged at Oxford in building organs for New College and for the Oxford Music Schools ; he died very shortly after and was buried in the Cloisters of New College. The accounts for 1660, however, show that we took an early opportunity of setting up an organ again, and of appointing an Organist in the person of Mr. George Loosemore, one of three brothers natives of Exeter. A second brother, Henry, was Organist at King's at this time, whilst a third, John, living at Exeter, was an organ-builder of repute and built (in 1665) the Cathedral Organ there, which was regarded as one of the wonders of the day. It would seem that our brother George must also have been instructed in the art of organ-building, for not only was

<sup>12</sup> Senior Bursar's Accounts, 1596 :

"Item a Cornett bought for y<sup>e</sup> Chappell." xx<sup>s</sup>."

(The Cornett was a reed instrument of the Oboe class).

Ib. 1637 :

"For y<sup>e</sup> Sackbut. xl<sup>s</sup>."

(The modern representative of the Sackbut is the Trombone).

The allusions to "violls" are frequent. In addition to those used in the Chapel, a set of violls was provided for use in the "Common Chamber." In the Junior Bursar's Accounts for 1672 we have "To Mr. Loosemore for strings and stringing y<sup>e</sup> violls in y<sup>e</sup> Comon Chamber 01. 10. 00."

A special orchestra was hired on great occasions under heading "For a Symphony of Music," or "For a Consort of Music"; but it seems doubtful whether this refers to music in the Chapel, or only in the Hall, though in one instance ("at y<sup>e</sup> opening of y<sup>e</sup> new organ" 1694) the former is probably meant.

he paid for "mending y<sup>e</sup> organs," but (in 1663) an item appears

"To Mr. Leusemore for removing his owne organ,"

a natural inference from which is that he had as a temporary stop-gap supplied us with some small organ of his own or possibly his brother's construction. It would, however, appear that some portion at any rate of the organ which was dismantled in 1643 was rehabilitated in 1660, though not with a result which was considered worthy of the place and occasion, for under date June 9, 1662 we have a Conclusion signed by the famous "John Pearson," then just appointed Master :—

"Agreed that six-score pounds be layd out upon a Chaire-Organ in order to a Faire one."

This new organ was built by Thamar of Peterborough, and completed in 1663. Besides furnishing us with a new organ, he supplied us with a new boy to sing to it.<sup>13</sup> The organ remained in his hands for tuning, cleaning, and repairs until Lady-Day, 1685, he receiving an annual payment for the customary tuning and regulating, besides extras for any special work. In 1675 for instance there is an extra payment for

"Mending the Organ when eaten w<sup>th</sup> Ratts,"

and this in despite of an entry a short time previously

"For a Ratt trapp for the Chappell oo. or. 04,"

as well as an apparent cessation of the functions of the man "that should keepe dogges" out of it.

In the Accounts for the year 1686, we are brought for the first time into possible, though hardly probable, touch with our present organ, for they contain a mention of the famous

<sup>13</sup> Conclusion December 16, 1662. Agreed "that young Thamar son of the Organ-maker be admitted into the next Chorister's place which shall be void, and that he be in the meane time allowed such profits as belong unto a Chorister."

That Thamar was a builder of more than East Anglian repute is proved by a fact furnished me by Mr. W. Barclay Squire, viz.: that there exists in the Chapter Records at Winchester an agreement dated 27 July, 1665, "with Thomas Thamar of the Univer<sup>s</sup> of Cambridge Organ Maker to set up in the Cathedral under the great arch betwixt the two great pillars on the North side of the Quire of the sd church where the great organ heretofore stood a fair substantiall good and perfect double organ." One would rather infer from this reference to Cambridge that Thamar had settled here.

"Father" Smith,<sup>14</sup> whose position with regard to modern organ-building is somewhat similar to that occupied by "Papa" Haydn with regard to modern music. After the wholesale extirpation of organs by Act of Parliament it was natural that the trade of organ-making should at the Restoration receive a proportionate impulse, and that there should be sufficient work not only for our English builders but for foreigners as well. "Bernard Schmidt," however, has as strong a claim to the title of a "home" organ-builder and to the English name of Smith, as "Georg Friederich Haendel" half a century later had to be considered a "home" musician and to bequeath his name to (English) posterity untrammelled by any refinements of vowel modification.

We know nothing whatever of Smith's pre-English history, personal or professional, but there is a vague tradition that he, like Handel, was a Saxon from Halle. He certainly seems to have plumped full-blown into the world of English organ-building, for with the help of his nephews he had erected his Whitehall organ within a very few weeks of the landing of the King, and his Westminster Abbey organ was finished before the year was out. It is happily unnecessary to justify his reputation by any detailed allusion to the long list of organs which forty-eight years of constant employment enabled him to erect. It is, however, interesting to note how greatly his work was appreciated in Cambridge, inasmuch as he was called in by Pembroke, Christ's, and Emmanuel, as well as by the University and ourselves to build for them. Neither was he without admirers at the sister University, where he built organs for Christ Church and for the University (both for the Church and the Theatre). It is not at all unlikely that in addition to his general reputation the historic organ-duel<sup>15</sup> at the Temple church, in which he

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<sup>14</sup> Senior Bursar's Accounts, 1686: "To Mr Tho: Smith for putting y<sup>e</sup> Organ into tune and Serv<sup>ts</sup> that assisted him 01. 06. 00": also "To Mr Denson y<sup>e</sup> First payment upon y<sup>e</sup> Articles between him and Mr Smith towards making an Organ 10. 00. 00." The Christian name Thomas is probably a mistake, as there does not seem to be any trace of his having borne any Christian name but Bernard, whilst the introduction of Bernard in subsequent entries makes it clear that it is "Father" Smith that is referred to.

<sup>15</sup> The Smiths had at least one powerful rival to contend with, and

had so recently been victorious, was a special means of getting him an introduction to the College, for of the six Benchers in whose names the contract for the purchase of the Temple organ was drawn out, one certainly (Roger North), and most likely a second (Oliver Montagu) were closely connected with College Authority. The Roger North here mentioned was the brother of Dr. John North, who was Master of the College 1677—1683. He was succeeded in the Mastership by Dr. John Montagu, who as one of the "Manchester" house of Montagu must have been some relative of his predecessor's mother. The Norths seems to have been a very musical family, especially the second brother (Lord Keeper Guildford) and Roger, and to have taken a very keen interest in organs. To Dr. North himself too, who held a Court appointment as Clerk of the Closet, and was also a Prebendary of Westminster, Smith's position and person would of course be very familiar. Although it is evident from the entry quoted that Smith contracted to build our Organ in 1686, the fulfilment of the contract was for some reason postponed. It would not seem to have been an

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the Benchers of the Temple being sorely put to it to choose between the specifications submitted to them by Bernard Smith and Renatus Harris, as well as to satisfy the enthusiastic expectations of the many eminent friends and supporters of the rival candidates, who were instant in urging their claims, adopted the somewhat astonishing course of having both organs set up in the church at once, to be used alternately Sunday by Sunday (like a kind of musical Medieté) and, at a later period, to be used alternately even in the same Service. This most unseemly contest was waged with uncompromising vigour for more than a whole year, no lesser celebrities than Blow and Purcell being called in to "show off" Smith's organ, and a foreign organist of the Court named Draghi playing for his rival. If Burney is to be believed, either the fury of partizanship or the exigencies of the betting-book assumed quite modern proportions, such as in these days unhappily necessitate the vigilant watch kept over a Clasper or a Searle on the eve of the Boat-Race, for on the morning of the last day of trial it was discovered that Harris' friends had during the previous night surreptitiously perforated Smith's bellows, with the intention no doubt of producing that charming acoustic effect which results when "the wind goes out." It may be some consolation to us to know that the casting vote on the Committee of Benchers who had finally to decide between them was that of a Trinity man, the famous Judge Jefferies, and we will patriotically assume that on this occasion at any rate the only "metal" in question was that of the organ-pipes.

That Harris as well as Smith had "friends at court" in Cambridge may be inferred from the fact of his being selected to build the King's organ in this very year, 1686. What a "high time" the musical undergraduate would have had here if King's had seen fit to adopt the Temple precedent.



*exceptionally* busy period with him, for his big organ at Durham was completed and his Temple troubles were fairly over, whilst the "breeze" between him and Sir Christopher at St. Paul's had not yet sprung up. Whatever be the explanation of the delay, we did not get our organ until 1694. Including the charges for the "commons" of the builders, who were apparently boarded in College, the price paid for it was £160, a sum about equivalent in such a case to £600 of present value.<sup>16</sup> It could not therefore have been a large organ, not much larger in fact than the "chaire organ" erected by Thamar twenty years before. Although it is apparent that there was a contract in this instance, that contract has disappeared, and we have no means whatever of ascertaining what stops the organ really contained. This organ, however, did not have a very long life, for only 12 years later (in 1706) Bentley's work in the Chapel was begun. Amongst other alterations made at this time the Organ-screen itself, which had originally occupied exactly the same position as it has done since 1870, was moved 17 feet or so eastwards. This removal rendered it of course necessary to take down the organ, just as it had to be taken down in 1870, when we shifted the screen back again. The opportunity was accordingly taken of giving Smith an order for a new organ of more adequate proportions. It is of course just possible that in building it he re-used some of his 1694 pipes, but as the "scale" of the two organs must have been essentially different, and as he would have such ample opportunities of making use of these smaller scaled pipes elsewhere, it is not likely that he did this. Here again, most unfortunately, the specification and contract have not survived; neither have we any record of the sum paid. The funds for the Chapel Restoration of this date were mainly provided from private sources and no adequate entries of expenditure occur in the Corporate Accounts. When Professor Walmisley stated fifty years ago in the Cambridge Portfolio that this Organ cost £1500 he could have had no evidence for that statement which is not accessible to ourselves, and the account of our organ presumably furnished by

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<sup>16</sup> I have the support of no less an economic authority than Professor Thorold Rogers in taking 4 as a safe multiple in this instance.

him a few years later for Rimbault and Hopkins' History contains such extraordinary mis-statements as to render his authority on such a point quite worthless. As, however, this "new organ" formed one of the most salient features in the articles of indictment against our illustrious but unpopular Master,<sup>17</sup> we may fairly assume that a good round sum had been spent upon it. We have, too, other means of deriving at least an approximate notion of the kind of scale adopted. The contract for work done to the organ in 1836 is so detailed as to enable us with the help of other references to frame with tolerable certainty a list of the contents of the organ as the contractor must then have found it, and though in those intervening 130 years the organ was often in the hands of eminent builders for "repairs and improvements" it does not seem likely from the sums spent that the scale of its contents can have been very materially modified. Then again the Organ case (as it was previous to its extension in 1870)<sup>18</sup> was the original case of 1708, and the case of an organ of that date is in itself a very fair indication of the probable extent of its contents; lastly, we undoubtedly have a sufficient remnant of

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<sup>17</sup> Bentley appears to have ordered the organ first, and then to have beautified the Chapel in order to make the latter worthy of the new instrument—a reversal of the usual order of procedure.

"His true reason for doing this" (repairing the Chapel) "was, because he had promised the old organist, one of his Club, whom he called *Father Smith*, that he should make the College an Organ, soon after he was Master. The old man continually dun'd him for his Promise, and at last told him he had near made it; the Price, I think, was about 1500*l*, which made it almost necessary to beautify the Chapel for the reception of this costly Instrument." (Some remarks upon a Letter entitled the Present State of Trinity College in Cambridge. By Mr. Miller, Fellow of the College. London. 1710.)

Miller is a prejudiced witness, but his account of this matter is accepted by Monk ("Life of Richard Bentley," Vol. I., p. 205).—A. G.

<sup>18</sup> The original Organ case was not *altered* in any way in 1870, only *added to*. The extreme flanking "towers" at each end with the "flats" adjoining them are additions, the rest is original. As regards the little case in front, that was not touched in 1870, and though it has just now been projected out on cantilevers, to the very great improvement of its appearance and effect, its front is still what it was when first constructed. The general effect of the original case will be seen in Le Keux's sketch as given at p. 587 of Mr. Clark's Vol. II., but in details it is very inaccurate, and furnishes a good instance of how little reliance can be placed on such prints as evidence of fact. The outer portions of the little case, for instance, are drawn as "towers" instead of "flats" as they should be. (For a view of the Organ before 1870, see facing title-page).



THE ORGAN IN 1870.





the more important of those contents to give us a good clue for estimating the rest. Putting all these considerations together I think we should not be far wrong in saying that the scale of our Organ, as of our Hall, was much the same as that of the Temple, and that a round £1000 would have been the price paid for it.

This second "Smith" organ is undoubtedly the legitimate progenitor of our present instrument, however much the line of its descent may be blurred and complicated by intervening alterations, and it possesses a special historical interest as having been the result of his latest and maturest efforts. In fact it was not actually "out of hand" before his death, though it must have been all but completed. The order was probably given for it early in 1707, if not in 1706. The work of the Chapel Restoration was begun in July, 1706 (see the orders quoted by Mr. Clark on p. 578 and p. 580 of his 2nd volume), but as was the case with the Chapel Restoration of our own times, the masons and other external workmen were first in the field. The taking down of the organ, however, must have been the initial step in any internal work, and it would naturally have been decided at this point whether it was to be rebuilt or a new one substituted. The Chapel was re-opened again in the summer of 1708 (very likely on Trinity Sunday) as the Steward's Accounts to Michaelmas 1708 testify; and as there was evidently a "big function" on the occasion, we may fairly assume that the Organ took its share in the proceedings. The exact date of Smith's death is not known, but that it probably took place in February or March of this year is a reasonable inference from an entry, under date April 6, in the parish books of St. Margaret's, Westminster, appointing "Henry Turner to be organist in the room of Bernard Smith, deceased." His death was the occasion of the following interesting entry in our Conclusion Book:—

May 3, 1708. "Agreed by the Master and Seniors y<sup>t</sup> Mr. Christopher Schreider do finish the Organ by tuning and voicing it; and that he be allowed so much out of y<sup>e</sup> total sum agreed for with the late Mr. Bernard Smith for making y<sup>e</sup> whole Organ, as Her Majesties Organists shall think reasonable.

Schreider was Smith's son-in-law and had no doubt been his mainstay in the business during his later years, though this

partitioning of the payment for executor's purposes shows that he did not occupy the legal position of partner. It is interesting to know that this reference of arbitration is a link which brings our Organ into association with the two greatest English musicians then living <sup>19</sup>, Dr. John Blow and Dr. William Croft, who, though successive organists of the Abbey, held simultaneous appointments at the Chapels Royal.

It is curious how history repeats itself. Just as our Organ in 1708 was the last task to occupy the thought and attention of "Father" Smith, so its re-construction and enlargement in 1870 was the very last work undertaken by Mr. William Hill, the head of the well-known firm of "Hill & Son," who for the excellence as well as the importance of his organs, and especially for the lead he took in the substitution of the CC for the old GG compass, most justly deserves to be called the "Father" of modern English organ-building. I well remember my visits to him in his office (then in the Euston Road), and the patient care with which he entered into every detail of our plan of reconstruction; a truly grand and noble-looking old man of eighty summers, who continued his daily visits to the factory almost to the last day of his life. His death on December 18 of that year prevented his seeing the completion of his work in our Chapel.

But to return to the original organ. In Smith's time, what we now know as the Swell Organ, had not been invented. If, as we may fairly assume, our organ, like those at the Temple and St. Paul's, was a "3 manual" organ, that is one with three separate soundboards, and three corresponding sets of keys communicating with them, the three would be (1) The Great Organ, (2) The Little or Chaire Organ (now known as the Choir Organ), and (3) The Echo Organ. Very shortly, however, after Smith's death the idea was started of so constructing the box in which this third organ was enclosed that a portion or portions of it could be made gradually to open at the player's pleasure, thus producing a "crescendo" or swelling of the sound and a corresponding "diminuendo" on its being closed again. According to a contemporary advertisement in

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<sup>19</sup> Their still greater contemporary, Henry Purcell, though born ten years later than Blow, had then been dead thirteen years.

the *Spectator* (February 8, 1712), the organ erected in that year by Abraham Jordan in the church of St. Magnus at the north end of London Bridge was the first scene of this experiment, and how ready the College was then, as now, to welcome on behalf of its own organ any well ascertained improvement, will be seen by the Conclusion quoted below<sup>20</sup>, from which it may be inferred that we took the first opportunity afforded by those periodical dismemberments of the organ which are necessary for cleaning purposes to add this new feature to it. The Organ remained in the hands of Smith's representative Schreider (or "Shryder," as the name is most frequently spelt in our books), up to the end of the year 1734, both for the regular tuning as well as for those more elaborate periodical

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<sup>20</sup> 1715, November 24: "Agreed that Mr Bursar pay to Mr Schrider £30 for cleaning and voicing y<sup>e</sup> Chapel Organ, and £30 for y<sup>e</sup> swelling stops."

After this entry it is somewhat astonishing to be told in Rimbault and Hopkins' *History of the Organ* (p. 541) that the Swell was added to our organ by Byfield, a builder who most certainly never had anything to do with it at any time. But the whole account there given (which it is clear from internal evidence was furnished in the year 1854), is full of errors; and to make matters worse the reference which occurs in the first edition of the book (1855) to Walmisley as "the *present*" organist was altered in the second (1870) edition into "*late*" organist thereby leaving the reader to infer that the description of the organ (which is reproduced without any material alteration from the first edition), was supplied *after* Walmisley's death in 1856, and therefore represented the organ as it was subsequent to that date; a curious instance of the confusing results of isolated verbal alteration such as one is not accustomed to find except in Acts of Parliament or University Syndicate Reports.

In connection with Schreider's work at this time I ought perhaps to qualify the expressions used in the last note but one about the case.

In speaking of the case (as it was in 1869) as the "original" case, I meant that it undoubtedly belonged to the "Smith and Schreider" period, and with regard to the larger case there can be no question of its having been put up in 1708: though it is just possible (but hardly probable) that it may have been in whole or in part a revival of the case of 1694. It will be noticed, however, that the mouldings of the smaller case are more elaborate than those of the larger, so that the two cases may not be absolutely of the same date. Schreider's work referred to in this order of November 24, 1715, would form a very fitting occasion for some enlargement, and the resemblance between the carvings on the small case and those on the tablet near the vestry door in memory of Roger Cotes, who died in the following year, suggest very forcibly that they may have been designed by the same hand. At the same time the fact that this arrangement of a double case "great and chayre" in buildings such as our Chapel was so thoroughly established, makes it much more likely that with us, as at King's, this little case formed part of the original design.

overhaulings essential in the case of so complicated a structure as an organ<sup>21</sup>. In addition to the one just referred to seven years after its erection, another took place in 1723, and the accounts for 1732 and 1734 give indications of still more elaborate works involving presumably some substantial reparation. This is the latest date at which it remained in the hands of those concerned with its original construction. In 1735 it passed into the charge of a local builder named Turner (who was also an organist<sup>22</sup>), who continued for very many years to tune it, and by whom it seems to have been specially overhauled in 1747. During this period the history of the Organ brings pleasantly under notice the great interest taken in it by Dr. Robert Smith, a name endeared to the heart of each successive generation of Cambridge mathematical students as that of the founder of the "Smith's Prizes," but which will be more enthusiastically and universally revered in Trinity, as that of one who was not merely a Benefactor in the ordinary pecuniary sense, but the donor of that priceless work of art, Roubiliac's Newton, a statue, which, as regards the artist's astounding triumph over the difficulties of modern official dress, as well as the vividly *spirituel* aspect he has imparted to the whole work, may fairly be described as one of the most wonderful efforts of modern sculpture. Both as Fellow, and subsequently as Master, Dr. Smith displayed a special and active interest in our organ and in our choral service generally. Though not like one of his predecessors, St. Just of King's Hall, a Doctor of Music, his reputation as a musical connois-

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<sup>21</sup> It is truly lamentable to observe how in this respect the gifts of one generation are ruined and rendered valueless by the carelessness or niggardliness of the next. There are thousands of organs in England at this day, the productions of skilful and conscientious builders, which are being gradually destroyed by the lack of proper attention. Whether by general parochial subscription, or by the individual generosity of "the great man at the hall" an organ is erected, but no simultaneous provision is made to meet the constant and the periodic charges which are as necessary for the maintenance of the gift in proper working condition, as are the constant cleanings and periodic new main-springs in the case of a presentation gold watch. Those who are inclined to make their "local benefaction" take the form of an organ had better by far spend only three-quarters of the sum intended on the instrument itself and leave the remaining quarter in trust to help the parish in maintaining it.

<sup>22</sup> See Preface to Dr. Robert Smith's "Harmonics," page ix.



seur, especially in the matter of organs, was so great, that his judgment and advice were sought in 1749 by the authorities of the Foundling Hospital, then in its tenth year of existence ; and it was under his superintendence that Parker, a leading organ-builder of that time, erected in their newly-completed chapel the organ which Handel "opened" in 1750. We are told (somewhat in the "fugues and diapasons" style) that the "learned Master of Trinity *added demitones*, &c., and some of the niceties not occurring in other organs." It is hardly probable that Handel's *protégé* and amanuensis, John Christopher Smith, who was appointed organist at the Foundling, was related to our Dr. Robert Smith, for he was of German extraction, but it may fairly be assumed that Handel's well-known and generous interest in the Foundling must have brought him, in this matter of the organ, into close personal contact with our Master, and it would be most interesting to know if his anthems, which the Senior Bursar's Accounts for the year 1748 show to have already found their way into our Chapel, were followed at any time by the great man himself on a visit to the Lodge, and whether he ever accompanied them on our own organ.

Amongst many other interesting points touched upon in Dr. Robert Smith's "Harmonics" is the question of pitch, *à propos* of which he gives us some most valuable information. It will very possibly be a surprise to some to be told that although the notation of the sounds as Handel and others then employed them was for all practical purposes the same as that used in the present day, and although the relationship between the sounds remains the same, the sounds themselves owing to alterations in pitch were very different. The fatigue and effort now involved in the rendering of such airs as "I know that my Redeemer liveth," and "The trumpet shall sound," or of any big Handelian chorus, whether in our Chapel, or still more in a modern concert-room, were unknown in the happier times in which they were composed ; and it will be seen from what follows that the Trinity Chorister of Dr. Smith's day was exceptionally favoured in this matter. In a Scholium to Prop. XX. of his "Harmonics" (edn. 1759, page 208) Dr. Smith speaks of our organ as having been at some previous time "new voiced," and by altering the disposition of the keys

depressed a tone lower, and thereby reduced to the Roman pitch, as I judge by its agreement with that of the pitch pipes made about the year 1720." He also made experiments<sup>23</sup> to ascertain the actual pitch of the organ as it was at the time he wrote, and found it to be that which would give a vibration-number for the A above middle C of 395·2. One of Father Smith's organs, that at Hampton Court, was left absolutely unaltered in any way up to a very few years ago, and the pitch of its A was found to be 442, or '97 of a tone higher. This, therefore, was no doubt the pitch of our organ when first erected by him in 1708, from which it was lowered a whole tone by Schreider, either in 1715 or more probably during his last visit to it fifteen years later. The pitch for which Handel wrote, as we know from his own tuning fork, was that of 422·5, whilst modern concert pitch is 454·7. The present pitch of our organ is 441·7, nearly a semitone above Handel's pitch, whilst concert pitch is more than five-eighths of a tone above it.<sup>24</sup> Pending any demonstration on the part of the eminent physiologists of our Society that the mechanism of the human voice

<sup>23</sup> With what conscientious care and affection Dr. Smith conducted his experiments may be inferred from the following remarks on tuning to be found on page 209 of the second edition (1759) of his "Harmonics." After telling us that he declined to continue an experiment on the ground that the tuning of the organ "would be troublesome and improper at the present season, when cold and damp weather is coming on very fast," he proceeds:—"For the properest times for tuning the diapason of an organ seem to be from the latter end of August to the middle of October, when the air being dry, temperate, and quiet, will keep nearer to the same degree of elasticity for a given time. Because a very small alteration in the warmth of moist air will suddenly and sensibly alter its elastic force and thereby the pitch of the pipes before the whole stop can be accurately tuned. For that reason constant care must be taken not to heat the pipes by touching them oftener than is needful, nor to stay too long at a time in the organ case; nor to tune early in the morning, but rather towards evening, when the air is drier and its declining warmth is kept at a stay by the warmth of the persons about the organ."

<sup>24</sup> The greatest modern authority on the subject of musical pitch is Mr. Alexander J. Ellis, and the result of his investigations are to be found in the "Journal of the Society of Arts" for March 5, 1880. It is from this most valuable paper that I have extracted the figures given above. His recent death has robbed the College of one of its ablest scientific members, and it is sad to think that he should not be the only one out of the comparatively small group of distinguished men on whom the University conferred Honorary Degrees in June last that has been lost to the world in this short interval. (Mr. Cobb's remarks were written before the "flat" pitch was adopted by the leading English societies.—A.G.).

has received a corresponding development and adjustment during the intervening 150 years, let us be sympathetically tolerant whenever the members of our Choir with all their willingness fail somewhat in their intonation of passages which we compel them to sing so very much higher than the composers themselves in their sweeter reasonableness ever intended them to be sung

That Dr. Robert Smith's interest in our Organ was the interest of a life-time is proved by the following entry in the Junior Bursar's Accounts for the year 1767 :—

"To Mr. Parker, Organ Maker in London, for repairs and improvements in y<sup>e</sup> Organ by Order of and in Agreement with the Master and Seniors £185."

This was the last complete year of Dr. Smith's Mastership, and it is pleasant to think of him in his declining years as once more associating himself in so congenial an occupation with the builder with whom he had worked nearly a score of years previously under Handel's auspices at the Foundling Hospital. Unfortunately we are here without any information as to the nature of the work executed. The "Agreement" was probably only an ordinary estimate, for it did not receive the College Seal, and therefore was not entered in the College Register, and we are left to our own imaginations to conjecture what "demitones or other exceptional niceties" the learned Master and his *collaborateur* introduced. The sum, however, is not of a character to suggest any very extensive improvements or alterations, but as 20 years (an exceptionally long time) had passed since it was "cleaned, &c.," no doubt a thorough overhauling was necessary, together with an entire renewal of some of the more perishable parts such as bellows, and tracker-action, &c., which had probably not been touched since Schreider's last visit in 1734.

With the exception of some new bellows in 1790, and a few occasional repairs executed by a local builder named Argent, the Organ for the remainder of the century seems to have followed suit with the ecclesiastical times and to have lapsed into a condition of quiet and uneventful repose, from which it woke up, with the Evangelicals, at the commencement of the present century. In 1801 and 1802 we paid John Avery (partly direct and partly through the agency of the

Bankruptcy Commissioners) sums amounting to about £240 for work to the organ, the nature of which we are unable to particularise. Considering, however, that 35 years had elapsed since it was last in an organ-builder's hands, such a sum as that could scarcely have gone further than to render it decently playable by cleaning and repairs. Old Dr. Randall, the organist, in his declining years had no doubt preferred to let things jog on as they were sooner than face the troubles of improvement, but the enterprising Dr. Clarke (better known under his later name of Whitfeld or Clarke-Whitfeld) must have viewed the condition of things with some disgust when he entered in the summer of 1799 on his duties as College Organist. We had not only, it seems, to render the organ playable, but to make it presentable to the eye as well, and in 1801 we paid "Thos. Johnson for new gilding Organ Pipes, £33 5s." Avery was a builder of eminence, whose workshops were in the yard of St. Margaret's, Westminster, for which church he built an organ. He does not appear to have been called in to do work at Cambridge until quite late in his career; when he had finished our work, he went on to King's. Though a good workman, his personal reputation was shady; he seems, according to Mr. Hill, "to have paid nobody and left behind him such a bad reputation in Cambridge that organ-builders were looked upon askance by the tradesmen for some years afterwards." Rimbault and Hopkins (p. 541) say that "he added a set of Pedal pipes," but as this is in the same sentence which credits us with "a Swell by Byfield" (vide *ante*, note 18) this statement cannot be relied on. Lincoln, another London builder, did work for us in 1808 for £116, but this was probably only cleaning; extensive Chapel works were being carried out at this time (nearly £1000 was spent in painting alone), and no doubt the organ got into a mess. Lincoln had charge of the organ during the next ten years, until in an evil hour the College placed themselves (in 1819) in the hands of Messrs. Flight and Robson, and worse still tried ventures with them in the Courts of Law. Many hours have been spent in a vain hunt in the *Cambridge Chronicle*, the *Times*, and the Law Reports for the years 1819 and 1820, in the hope of coming across some explanation of the untoward fate which thus befell our noble Organ, but without result.



The lamentable fact, however, is too evident that Messrs. Flight and Robson "claimed extras" (on an estimate of £147) which we disputed; that we had to pay them these extras and their costs (making together another £106) and that our lawyer's bill, including Dr. Whitfeld's expenses as witness, amounted to £280!! making a total of £533. Mr. Hill tells me, and he is not likely to be wrong on this point, that they put in some "Apollonicon bellows, worked on the rotary principle, and some Pedal pipes"; it is also probable that Rimbault is right in saying that they altered the pitch of the organ, for it was certainly raised some time previous to 1830, and there is no other entry in the accounts which could adequately account for this. Messrs. Flight and Robson were said to be "sharp practitioners, often at law and invariably victorious," but if they really did to our organ all that is here ascribed to them one can hardly be surprised at their claims being allowed in Court, and the College must have been very ill-advised indeed to have disputed them.

The work done to the Organ by Messrs. Flight & Robson was not only dearly paid for by the College, but did not in itself prove very satisfactory. Whether the choir "struck" or not on account of the alteration of the pitch<sup>25</sup> in the organ we are not told, but it certainly is the case that the new-fangled "Apollonicon bellows" struck work in a comparatively short

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<sup>25</sup> Their grievance in such a case would not have been a purely sentimental one. Some of the older Vicars-Choral at Westminster Abbey complained bitterly when on the reconstruction of the organ some seven years since the pitch was raised. The mechanism of the human voice is so extremely delicate and minute, that it is by no means an easy matter for a singer who has been singing precisely the same music at a given pitch in the same building for very many years, and with whom, therefore, the "muscular associations" in the case have become, as it were, stereotyped, suddenly to shift his base and adjust the vocal processes to their new conditions. If he is called upon to sing something entirely new, the case is different; his only difficulty then arises from the increased strain upon the voice implied in the raising of the register; it is in the sudden "transposing" of familiar music, in which habit has had time to assert itself, that the difficulty occurs. The voice, no doubt, has a certain diurnal transposition of its own register, its compass extending upwards as the day grows older; and I remember once meeting on the Continent a lady vocalist who carried about with her five copies of "Il Bacio" in five different keys (ascending by semitones), to fit in with the conditions of her voice at five separate periods of the day! "This, however, belongs to another story."

time, and, after giving much trouble, had to be supplanted in 1830 by new ones made by Messrs. Elliott & Hill.

In the year 1836, under date April 26, we have the following Conclusion :—

“A specification and estimate of certain proposed reparation and improvements in the Organ in the Chapel having been laid before the Board this day, agreed by the Master and Seniors that the proposed works be executed agreeably thereto by Mr. John Gray under the direction and superintendence of Mr. George Cooper;<sup>26</sup> and that a legal agreement be prepared by the College Solicitor between the College and Mr. Cooper.”

This agreement was duly copied into the College Register. If you were to dictate to a poetess of average intensity a page and a half of an official report of some chemical analyst, you would probably succeed in producing a fair equivalent of the struggles of our solicitor's clerk with the mysterious technicalities of the organ-builder. From this point of view the document is amusing, though somewhat stiff reading, but its real value and interest is in the light it throws upon the nature and contents of the Organ as then existing, and the help, therefore, which it gives in enabling us to specify with a greater or less degree of certainty what are the really original parts of the present instrument. Mr. John Gray was a well-known builder of that day, and his lineal successors, the firm of Messrs. Gray & Davison, have since erected many important organs in England, notably the big “Handel Festival” organ in the transept of the Crystal Palace. A detailed description of their work on this occasion would be too technical, but it really amounted to a reconstruction of the Organ almost proportionate in extent to that subsequently undertaken by Messrs. Hill & Son in 1870, though hardly displaying that conservative reverence in the preservation of old work which has always characterised the organ restorations of this latter firm.

The chief features of Gray's alterations were :—

(1) The conversion of the Organ from what is known as a G organ into a C organ by an extension of the Great Organ

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<sup>26</sup> Mr. George Cooper was Assistant Organist at St. Paul's to Attwood, and Organist of St. Sepulchre, Holborn, and the father of the perhaps better known George Cooper, who was his successor in both posts.

compass downwards by seven notes. Its upward compass also was increased by three notes. Additions were at the same time made to the compass of the Choir and Swell, though they fell short of giving them the complete range we are now accustomed to.

(2) The insertion of several new stops, especially reed-stops, in the place of old ones, the addition of extra stops, and the thorough repair and cleaning of such old ones as were retained.

(3) It is impossible to say what had been the previous compass of the Pedal board, but it is not likely to have been more than twelve notes, if so many; Gray made a Pedal board of two octaves.

(4) The Swell was entirely reconstructed, both box and sound-board.

Two features introduced at this time (at the suggestion of the organist, Dr. Walmisley) were not only innovations, but were so *unique*<sup>27</sup> as to constitute our Organ an object of curiosity for many years to come. The most important of them was the prolongation of the Great Organ manual throughout the whole tonal compass of the instrument; in other words, the key board was made to approximate to that of the pianoforte by the addition of an extra bass octave (down to the 16-ft. C)—most C organs both then and subsequently ending their manual compass at the 8-ft. C. It should be remembered that the Pedal board was still in a very primitive stage of development, and the art of pedal playing as now understood was at that time possessed by an extremely small number of organists, of whom Walmisley could hardly be reckoned one.<sup>28</sup> The addition, therefore, of this extra octave

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<sup>27</sup> The CCC manual was not strictly unique in 1836, as the York organ (1830) had already been furnished with one. Moreover, Smith's organ at St. Paul's retained this (its original) compass up to 1874.—A.G.

<sup>28</sup> Mr. Cobb's reference to Walmisley may be misunderstood in these later days. It may be that he did not possess the execution of more modern organists, but the testimony of all who heard him play the service is unanimous as to his remarkable powers as an accompanist. As a composer, Walmisley hardly did himself justice, but his Evening Service in D minor remains one of the finest in the *répertoire* of the English Church. I have been told on good authority, that he had not a high opinion of this service, and that but for the remonstrances of the late Rev. A. R. Ward, it would have been burnt.—A.G.

on the manual enabled him to produce effects which were beyond the reach of the average player of that time. The subsequent rapid development of pedal playing, however, soon robbed our organist and his organ of their former advantage, and this unique keyboard in the latter years of its existence (for it was not removed until 1870) became a cause of surprise rather than admiration, as well as the source of confusion to strange organists, who on sitting down to play a Fugue would often find themselves starting the "subject" an octave lower than they had intended. The other remarkable feature in the Organ was a coupling stop which connected the pedals with the Choir Organ manuals at a register of *two octaves above*. By this means the player could play the melody of a movement with his feet, and so devote both hands to the accompaniment.

The organ-case was on this occasion enlarged to make room for the various additions, but in *depth only*, so that its appearance, as seen from below, remained precisely what it was before.

Messrs. W. Hill & Son did some minor work to the Organ in 1841 and 1848, and made some more important and extensive alterations in 1853. In 1855 they added a set of 16-ft. pipes (the Violone stop, still in the organ), which were then placed on a supplementary sound-board of their own in the sill of the window on the north side of the organ-loft. Beyond the regular tuning and one thorough cleaning in 1861 nothing further was done to the Organ until the alterations and decoration of the Chapel carried on during the year 1870 and five following years.

One main object of these alterations was to provide further accommodation for our growing numbers, and in order to obtain this, the organ screen, which in Bentley's time had been shifted one bay to the east (thereby adding to the length of the ante-chapel), was shifted back again to its original position and its depth contracted, thereby adding considerably to the Chapel proper and thus increasing the area at command for seating purposes. The shifting of the screen made the temporary dismemberment and removal of the Organ a necessity; and it was at first suggested that it might be placed in an organ chamber built out for the purpose on the north side



of the Chapel, as at St. John's. Happily this wicked invention of the modern church-builder found but little support, and it was soon decided to rebuild the Organ on the screen, and to take the opportunity of adding materially to its contents. The contraction of the organ screen made it impossible to add to the *depth* of the case, so that the extra space had to be gained by adding to its *width*, the two flanking "towers" with the adjacent "flats" being the new portions. The case was also decorated agreeably to the general scheme of chapel decoration, the top story of it being further embellished with the crown, supports, and some other ornaments previously attached to the *baldacchino*, the removal of which was felt to be desirable in view of the new decorative treatment which it was to receive.<sup>29</sup>

Messrs. Hill & Son's contract amounted virtually to the building of a new organ, but with the careful incorporation in it of all that was really valuable in the existing one. (A comparison of the specifications of the Organ before and after 1870, given on pages 36 and 37, will shew the additions of that year.—A. G.) Up to 1870 it had been blown by hand, but the facilities afforded by the excellent pressure of our local water supply enabled us to introduce hydraulic engines, and so spare our organist the harrowing thought that he could never let his thunders loose without wringing the last pound of flesh out of his gasping and panting *collaborateur* in the rear.

The work of Chapel decoration was not finally completed until the spring of 1876, and as during its progress the dust at times flew thick and furious, it was inevitable that the Organ should get into a grimy condition, so that it had to undergo careful cleaning and overhauling in the summer of 1876.

(G. F. COBB).

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<sup>29</sup> These ornaments have now (1912) been removed from the organ—A. G.

In 1889 a good deal of work was done to the Organ. The action was altered to the pneumatic system then in vogue, which was far from being so efficient as it has since become, and a few more stops were added. The most important of these was a 32 feet Open wood on the pedal. As to this, Mr. Cobb writes :—

"This extension of the compass *downwards* would, it was thought, add materially to the balance and solidity of the general organ-tone, and the result has fully justified the expectation. . . No organ of the size of ours could have been considered complete without a set of 32-ft. pipes, but the great difficulty has been to find space for them. Various proposals were made to meet that difficulty, including one very novel one of placing them horizontally between the ceiling and the roof, and perforating the panels of the former just beneath the "mouths" of the pipes so as to get them to "speak" down into the Chapel. The best that could be said for such a proposal was that there was a moderate probability of its proving successful ; but the experiment, had it failed, would have been a somewhat costly one, and it was thought better not to hazard it. A great deal of misgiving was not unnaturally entertained at the idea of placing the pipes in the corner of the ante-chapel, under the apprehension that their appearance would be crude and unsightly. They cannot indeed be considered architecturally ornamental, but the bit of blank wall against which they are placed has so seldom any strong light thrown upon it that the presence of the pipes is hardly noticeable, and it has been ascertained by experience, that comparatively few visitors to our ante-chapel have yet made the discovery of their existence. Though unattractive, they have at least the merit of being retiring and unobtrusive. The most marvellous thing about them is the promptitude with which they speak, notwithstanding their distance (over 70 feet) from the player."

The other additions of 1889 are enumerated on p. 38.

In 1911 certain defects of the Organ had become so prominent that the College Council decided to entirely reconstruct the instrument. The work was entrusted to Messrs. Harrison and Harrison, of Durham, a firm which in the last few years has attained to the very front rank of the world's

organ builders. Many of the old stops were of beautiful quality, and the large variety of soft registers was an admirable feature. This gave a peculiar richness to the soft combinations, and testified to the care and thought bestowed on the plan by Sir Chas. Stanford and the late Mr. Gerard Cobb. But the Organ had serious defects. The chief of these were :

- (1) The slow and noisy action.
- (2) The bad quality of the Reeds, especially of the Chorus Reeds. These were all on light pressure. The science of Reed voicing has made great strides in the last twenty years, and heavy pressure for the powerful stops, then practised exceptionally, is now a *sine qua non*.
- (3) The unsteadiness of the wind supply, which though ample in itself, was badly distributed.
- (4) The weakness of the Pedal Organ. This, though adequate on paper, was very ineffective, partly owing to its unfavourable position.
- (5) The crowded state of the organ generally, which remained as laid out in 1870. The additions of 1890 only aggravated this defect.

The works necessary to amend these faults have been very extensive and amount to a rebuilding of the Organ :

- (1) The action has been replaced by the builders' latest tubular pneumatic and electro-pneumatic systems. The latter process is applied to the Swell and Solo Organs.
- (2) The Reeds have all been revoiced and replaced by new stops where necessary. The Chorus Reeds have been placed on heavy pressure.
- (3) The wind supply has been re-arranged, and numerous additional reservoirs have been introduced.
- (4) The Pedal Organ has been largely augmented by the employment of "borrowing." Of the two heavy 16-ft. registers, the Open metal has been replaced by a new stop, and the Open wood has been rescaled, revoiced on heavier pressure, and placed in a more advantageous position.
- (5) The Choir and Solo Organs have been rebuilt north and south respectively of the Swell box. The Choir

was formerly alongside the Great, while the Solo occupied a very cramped position to the west of the swell box. These alterations leave the whole of the first floor to the Great Organ, and provide room for a much-needed longitudinal expansion of the swell box.

On the Manuals but few absolutely new stops have been added, but the whole Organ has been revoiced, and many stops have been recreated by the genius of Mr. Arthur Harrison. Moreover, nearly all the Reed stops have been so treated as to be practically new. The Hohl Flute, Quintaton, and Viol represent types of tone that did not exist on the old Organ, and some stops which appeared to be superfluous have been discarded in order to make room for them. There has also been a considerable interchange of stops for the purpose of securing more effect and variety of tone. An instance of such advantageous transposition may be noted—the Piccolo on the Solo was rarely used, and its place is now practically supplied by the Octave Couplers in conjunction with the Harmonic Flutes. It is therefore placed on the Great, where it completes a family of 16, 8, 4, 2 wooden stops. The old Wald flute on the Great (4 ft.) and the Clarabella (8 ft.) on the Choir have also changed places and become 8 ft. and 4 ft. respectively. Mr. Harrison informs me that the former stop, certainly dating from the 18th century and conjecturally ascribed by Mr. Cobb to Parker (1767) is a real Clarabella, a stop which is usually considered to have been invented by Bishop at a much later date.

As no less than eleven ranks of mixture have been added to the organ, a word on the subject of Mixtures may not be out of place. These stops in old organs, both foreign and English, were numerous, and as a rule noisy. In English organs during the past forty years they have been few and invariably noisy. In some instruments of recent years they have disappeared altogether, and it is frequently stated that they are becoming obsolete. But the most modern authorities and builders, amongst whom Messrs. Harrison are prominent, hold that the old builders were right in introducing many ranks of mixture, but wrong in making them noisy. They consider that all the available intervals of the harmonic series, including





THE ORGAN IN 1913.



the third, and even the flat seventh should be represented, not with the object of furnishing a "shrieking apparatus," but strictly as a corroboration of the natural sounds already existing. To this end the tones are carefully subdued and graduated, according to the proportionate strength of the original harmonic sounds. The result is a fascinating bell-like fulness, obtainable in no other way. Considering the results which have been obtained in the last few years, it is not too much to say with Mr. Audsley, that the art of Mixture making is in its infancy.

The Father Smith stops, about seven in number, have been carefully preserved. Apart from their intrinsic merit, it was a special point of interest to preserve pipes, to the tones of which so many eminent men from Newton downwards must have listened. The Pedal Organ has been on paper, and practically, considerably augmented, and the increase in the number of the stops in the organ is almost entirely due to additions here. When completed, it will contain sixteen as against eleven stops. The nominal increase of five stops in reality understates the case, as the previously independent Fifteenth has been absorbed in the Mixture, which used to contain only three ranks and now has five. Nevertheless, owing to the extensive use of "borrowing," rendered possible by the wonders of modern mechanism, the number of pipes in the department is actually reduced by thirty. Borrowing has been resorted to with especial freedom, for the purpose of saving room, and in two cases pipes already in the organ have been discarded to this end. There are only six complete stops ; five of a soft character are borrowed direct from manual registers, and five are extensions of the complete stops.

The new Pedal Organ is one of the finest in the kingdom, even though one important stop is not at present inserted. I believe that the number of 16-foot stops is only equalled or exceeded by one English Organ (the gigantic instrument at Colston Hall, Bristol).<sup>29</sup> All these seven stops are well

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<sup>29</sup> The recently published scheme for the new organ in Liverpool Cathedral has already made the above remarks out of date. This instrument is to contain 167 stops, considerably more than twice the number in the Trinity Organ!

differentiated, and supply a Bass for every possible Manual Combination. Of the new stops No. 8 is *pp*, No. 6 is of medium power, and No. 7 supplies a *mf* bass of exquisite quality. No. 12 renders an enclosed Reed available on the Pedal, and in fact the only criticism that can be passed on this department of the organ is that there are no other enclosed Pedal Basses. Conditions, however, rendered a sufficiently high Swell box impracticable, and for the same reason the Bass of the Swell Double Salicional has had to be stopped.

The Positive is entirely composed of Father Smith Stops. It is distinct from the Choir, and practically forms a fifth "Organ."

The internal arrangement of the Organ has been completely remodelled, and it is now possible to reach any part without difficulty. The location of the different manual "Organs" has been already indicated. On the Pedal Organ the big Open wood and its extension has been placed on the south side of the case, the larger pipes being in front. The large Open metal and its octave is similarly disposed on the north side. Behind them is the upper part of the 32 ft. and its extension, with the Violone to the west. The long pipes of the Double Dulciana are near the Choir sound-board in the south-east tower, behind the front pipes which are now made to speak, and form the bass of the large Great Open. The pedal reeds and Tuba are in front of the swell-box, and the Sesquialtera is on the ground floor beneath the open wood. The lowest pipes of the pedal 32 ft. remain in the ante-chapel, and the middle pipes of the same stop stand as before in the "well" on the north side, but they have been depressed, so that they are no longer visible from the floor of the chapel, and an improvement in the appearance of the Organ is thus effected.

A further improvement in the view of the instrument from the East has been made by the removal of the ornaments referred to on page 29. The central portion of the organ is now as left by Smith. The illustration "before 1870" (facing title) shows it without the wings which were added in that year. This original part of the case is of the pattern almost invariably adopted by Smith.

Specifications of the Organ before and after 1870 and of the instrument of to-day are appended. In the account of the last, I have noted the principal transfers of stops, and I have also given the names of the original makers of all stops dating from the 18th century. It is of course necessary to remember that in most cases only the middle portions of these stops are old, as from time to time the compass has been extended in both directions and new pipes have had to be added. I have also given details of the piston work, as in some respects the arrangements are unusual.

A. G.

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## THE ORGAN BEFORE 1870.

### GREAT. (CCC to F<sup>3</sup>).

	Feet.		Feet.
1. Double Diapason (to CC)	16	8. Wald Flute	4
2. Open Diapason	8	9. Twelfth	2 $\frac{3}{4}$
3. Stopped Diapason to GG	8	10. Fifteenth	2
4. Gamba to CC	8	11. Sesquialtera	3 ranks
5. Salicional to CC	8	12. Mixture	2 ranks
6. Quint to CC	5 $\frac{1}{2}$	13. Trumpet	8
7. Principal	4	14. Clarion	4

### CHOIR. (GG to F<sup>3</sup>).

15. Open Diapason	8	18. Principal	4
16. Stopped Diapason	8	19. Flute	4
17. Dulciana	8	20. Cremona	8

### SWELL. (Gamut G to F<sup>3</sup>).

21. Double Stopped Diapason	16	25. Sesquialtera	3 ranks
22. Open Diapason	8	26. Oboe	8
23. Stopped Diapason	8	27. Trumpet	8
24. Principal	4	28. Clarion	4

### PEDAL. (CCC to C).

29. Sub Bourdon	32	30. Violone	16
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### ACCESSORY STOPS.

1. Great to Pedal	16 ft. pitch	4. Choir to Pedal	2 ft. pitch
2. Great to Pedal	8 ft. pitch	5. Swell to Great	
3. Choir to Pedal	16 ft. pitch	6. Tremulant	

## THE ORGAN IN 1870.

### GREAT ORGAN. (CC to G).

1. Double Open Diapason	16	9. Wald Flute	4
2. Open Diapason No. 1	8	10. Nason	4
3. Open Diapason No. 2	8	11. Twelfth	2 $\frac{2}{3}$
4. Stopped Diapason	8	12. Fifteenth	2
5. Pierced Gamba	8	13. Full Mixture	3 ranks
6. Salicional	8	14. Sharp Mixture	2 ranks
7. Quint	5 $\frac{1}{3}$	15. Trumpet	8
8. Octave	4	16. Clarion	4

### SWELL. (CC to G).

17. Double Diapason	16	24. Fifteenth	2
18. Open Diapason	8	25. Mixture	3 ranks
19. Stopped Diapason	8	26. Double Trumpet	16
20. Cone Gamba	8	27. Cornopean	8
21. Salicional	8	28. Trumpet	8
22. Octave	4	29. Oboe	8
23. Flute	4	30. Clarion	4

### CHOIR. (CC to G).

31. Double Dulciana	16	36. Dulciana	8
32. Open Diapason	8	37. Flute	4
33. Stopped Diapason	8	38. Octave	4
34. Clarabella	8	39. Flutina	2
35. Viol da Gamba	8	40. Clarinet	8

### SOLO. (CC to G).

41. Vox Angelica, 2 ranks	8	45. Piccolo	2
42. Harmonic Flute	8	46. Tuba	8
43. Harmonic Flute	4	47. Orchestral Oboe	8
44. Lieblich Flute	4	48. Vox Humana	8

### PEDAL. (CCC to F).

49. Sub Bourdon	32	55. Flute	8
50. Open Diapason	metal 16	56. Fifteenth	4
51. Open Diapason	wood 16	55. Mixture	3 ranks
52. Bourdon	16	58. Trombone	16
53. Violone	16	59. Trumpet	8
54. Octave	metal 8		

In 1876 a Double Bassoon (to ten. C) took the place of the Solo Harmonic Flute 4 ft. transferred to the Great in place of No. 14.

In 1889 three stops on 5-inch wind (Open Diapason, Spitz Flute, and Bourdon 16 ft.) were added to the Great. A Dulciana took the place of the Nason. Two new stops in the Choir were a Doppel Flute, a rare stop in England, and a free reed Cor Anglais (16 ft.), the latter from Cavaillé Coll. A Harmonic Gemshorn was also substituted for the Flutina. The East Choir or Positive of four stops was added, the old front pipes by Smith or Schrider being again brought into use. They formed the middle part of a second Open Diapason, the upper octaves being completed by some old pipes of Snetzler, formerly in the Halifax organ; these were presented to the College by Mr. Walker Joy, who also gave a Dolce, made by Schulze in 1864. The Clarabella and the Smith 4-foot Flute from the Choir completed the East Choir. On the Pedal Organ an Open 32 ft. wood was substituted for the Sub Bourdon, and a Violoncello took the place of the Octave. The number of Stops was brought up to 67.

## THE ORGAN IN 1912.

### PEDAL ORGAN. (16 Stops, 4 Couplers).

		Feet.
1.	Double Open Wood	wood 32
2.	Open Wood (1)	„ 16
3.	Open Diapason (1)	metal 16
4.	Violone	wood 16
5.	Sub Bass (from No. 32)	„ 16
6.	Open Wood (2), (18 from No. 1)	„ 16
7.	Open Diapason (2), (from No. 34)	metal 16
8.	Dulciana (from No. 17)	„ 16
9.	Octave Wood (18 from No. 2)	wood 8
10.	Principal Metal (18 from No. 3)	metal 8
11.	Flute (from No. 32)	wood 8
12.	Sesquialtera 12, 15, 17, 19, 22	metal —
13.	Bombardon (prepared), (18 from No. 14)	„ 32
14.	Ophicleide „ „	„ 16

**PEDAL ORGAN**—*continued.*

15.	Trumpet (from No. 64)	metal	16	Feet.
16.	Posaune (18 from No. 41)	"	8	
	I. <i>Choir to Pedal.</i>			
	II. <i>Great to Pedal.</i>			
	III. <i>Swell to Pedal.</i>			
	IV. <i>Solo to Pedal.</i>			

**CHOIR AND POSITIVE ORGANS.** (15 Stops, 2 Couplers).

			Feet.	
17.	Double Dulciana	metal	16	
18.	Open Diapason	"	8	
19.	Spitz Flute*	"	8	
20.	Viola di Gamba	"	8	
21.	Dolce†	metal & wood	8	
22.	Clarabella* (to ten. C)	wood	8	? Parker, 1767.
23.	Rohr Flute‡	"	8	Schrider, 1715.
24.	Salicet	metal	4	
25.	Claribel Flute‡	wood	4	
26.	Harmonic Gemshorn	metal	2	
27.	Echo Cornet 15, 17, 19, 22	"	—	
28.	Cornocean‡ (Harmonic Trebles)	metal	8	
	V. <i>Swell to Choir.</i>			
	VI. <i>Solo to Choir.</i>			

**POSITIVE.**

29.	Open Diapason	metal	8	Smith.
30.	Stopped Diapason§	wood	8	Smith.
31.	Nason	"	4	Smith.

\* From Great. † From Positive. ‡ From Swell. § From Choir.

**GREAT ORGAN.** (20 Stops, 4 Couplers).

32.	Sub Bourdon (ten C)*	wood	32	
33.	Bourdon	"	16	
34.	Double Open Diapason	metal	16	Smith.
35.	Open Diapason I.	"	8	
36.	Open Diapason II.	"	8	
37.	Open Diapason III.	"	8	Smith.
38.	Gamba	"	8	

\* Formerly as Pedal Bourdon.

**GREAT ORGAN**—*continued.*

		Feet.	
39.	Hohl Flute	wood	8
40.	Stopped Diapason	"	8 Smith.
41.	Octave	metal	4 Smith.
42.	Principal†	"	4
43.	Wald Flute†	wood	4
44.	Octave Quint	metal	2 $\frac{3}{4}$
45.	Super Octave	"	2
46.	Piccolo‡	wood	2
47.	Sesquialtera 5, 10	metal	—
48.	Harmonics 15, 17, 19, 21, 22	"	—
49.	Contra Tromba (prepared)	"	16
50.	Tromba	"	8
51.	Octave Tromba	"	4

VII. *Reeds on Choir.*VIII. *Choir to Great.*IX. *Swell to Great.*X. *Solo to Great.*

† From Choir. ‡ From Solo.

**SWELL ORGAN.** (15 Stops, 2 Couplers).

52.	Double Salicional (Closed Bass)*	metal & wood	16	
53.	Open Diapason	metal	8	Schrider.
54.	Doppel Flute†	wood	8	
55.	Salicional	metal	8	
56.	Vox Angelica (ten C)	"	8	
57.	Principal	"	4	
58.	Lieblich Flute‡	"	4	
59.	Fifteenth	"	2	
60.	Mixture 12, 19, 22, 26, 29	"	—	
61.	Double Bassoon‡	"	16	
62.	Hautboy	"	8	
63.	Vox Humana‡	"	8	

*Tremulant* (by Pedal).

64.	Double Trumpet	16
65.	Trumpet (Harmonic Trebles)	metal 8
66.	Clarion	" " 4

XI. *Octave.*XII. *Solo to Swell.*

\* Upper part from Great.

† From Choir.

‡ From Solo.



**SOLO ORGAN.** (8 Stops, 3 Couplers).

		Feet.
67.	Quintaten	metal 16
68.	Viol (Orchestral)	" 8
69.	Harmonic Flute	" 8
70.	Harmonic Flute*	" 4
71.	Cor Anglais†	" 16
72.	Orchestral Hautboy	" 8
73.	Clarinet†	" 8

67 to 73 in a Swell Box.

XIII. *Octave.*

XIV. *Sub Octave.*

XV. *Unison off.*

74. Tuba (Harmonic) 8

\* From Great. † From Choir.

**COMBINATION COUPLERS.**

XVI. *Pedal to Great Pistons and Pedals.*

XVII. *Pedal to Swell Pistons.*

## ACCESSORIES.

**PEDAL ORGAN.** Three Combination Pedals.

- (1) draws 5, 8, 11 ; withdraws 11.
- (2) Adjustable
- (3) Reversible for No. 14.

**CHOIR ORGAN.** Six Combination Pistons.

- (1) draws 21 and 23 (*pp*).
- (2) „ 22 and 25 (Flutes).
- (3) „ 19, 20, 24 (Gambas).
- (4) „ 18, 19, 21, 23 (*mf*).
- (5) „ 17-21, 23, 24, 27 (Full).
- (6) Adjustable.

Double Switch to bring on Choir or Positive.

**GREAT ORGAN.** Seven Combination Pistons.

When XVI. is drawn, Great Pistons and Pedals will draw 11. and act on the Pedal Stops as in the second column.

- |                          |                    |                       |
|--------------------------|--------------------|-----------------------|
| (1) draws 38, 40         |                    | draws 4, 5, 8, 11.    |
| (2) „ 36, 37, 40         |                    | „ 4, 5, 7, 8, 11.     |
| (3) „ 36-40, 42          | } do not<br>affect | „ 4-8, 11.            |
| (4) „ 35, 37, 38, 40, 42 |                    | „ 2, 4, 5, 7, 8, 11.  |
| (5) „ 35-38, 40-42.      |                    | 33. „ 2, 4-9, 10, 11. |
| (6) Reversible for 33.   |                    |                       |
| (7) Adjustable.          |                    |                       |

## Three Composition Pedals.

- |                                 |                                |
|---------------------------------|--------------------------------|
| (1) adds 33, 44, 45 to Piston 5 | draws 2-4, 6, 7, 9, 10, 15.    |
| (2) „ 34, 47, 48 to Pedal 1     | adds 1 and 12 to Pedal 1.      |
| (3) „ (49), 50, 51 to Pedal 2   | „ (13), 14, and 16 to Pedal 2. |
- (does not affect 32).

**SWELL ORGAN.** Five Combination Pistons.

When XVII. is drawn, the Pistons will draw 11., withdraw 11., and act on Pedal Stops as in the second column.

- |                                |                  |
|--------------------------------|------------------|
| (1) draws 54, 55, 58           | draws 8.         |
| (2) „ 53-55, 57                | „ 5, 8.          |
| (3) „ 52-55, 57, 59, 62.       | „ 4, 5, 8,       |
| (4) „ 52-55, 57, 59, 60, 64-66 | „ 1, 4-6, 8, 15. |
| (5) Adjustable.                |                  |

**SOLO ORGAN.** Four Combination Pistons.

- (1) draws 69.
- (2) Adjustable.
- (3) draws 73.
- (4) Adjustable.

Pistons 1 and 3 take in XIII., XIV., and XV.

Reversible Pedal for 74 and IV.

Reversible Pedal and Piston for II.

Reversible Piston for IX.

**WIND PRESSURES.**

*Pedal*—No. 2,  $4\frac{1}{2}$  inches; No. 15, 7 inches, Nos. 49-51, 15 inches; the rest 3 inches.

*Choir*— $2\frac{3}{4}$  inches.

*Positive*— $2\frac{1}{2}$  inches.

*Great*—33, 35, 39, 4 inches; 49-51, 10 inches; the rest 3 inches.

*Swell*—64-66, 7 inches; the rest  $3\frac{1}{2}$  inches.

*Solo*—No. 74, 15 inches; the rest 5 inches.

*Action*—10 inches.

The Compass of the Manuals is from CC to C<sup>4</sup>. Pedals CCC to F.

The wind is supplied by three Discus blowers, driven by a ten horse-power electric motor.

There are over twenty miles of tubing and electric wire in the instrument.

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## APPENDIX A.

ON THE PHRASE *Chair-, Chaire-, or Chayre-Organ*.

The meaning and history of this phrase have been matter of dispute. In Grove's "Dictionary of Music," *s.v.*, we are told that it is "a corruption of Choir-Organ in use in the last century, not impossibly arising from the fact that in cathedrals the Choir-Organ often formed the back of the organist's seat."<sup>1</sup> This explanation is hardly satisfactory. It is probably grounded in part on Hawkins' statement (vol. iv., p. 150):—"We in England call it the Choir,—and by corruption Chair-Organ." But there is no evidence whatever of the chronological precedence of "Choir" over "Chair." "Chair" is in *constant* use throughout the 17th century, and a well-attested instance of the employment of "Choir" during that period has yet to be found. In Rimbault's History of the Organ many letters and specifications, &c., referring to organs built during the last quarter of that century have been printed, in which both phrases are given, and at first sight it rather looked as if this Restoration period might prove to be the time at which the supplanting phrase "Choir-Organ" first stepped in. But an examination of the original MSS,<sup>2</sup> so far as it has been possible to obtain it, has in every case revealed the fact that the word actually written was "Chair" and not "Choir"; and although the employment of "Chair" in the 18th century does not seem to be very frequent, the appearances of "Choir" appear also to be rare. It seems, therefore, difficult to assign any precise date to the *transition* from one phrase to the other. The only thing that can be safely asserted is that "Chaire-Organ" was as much the normal phrase throughout the 17th century as "Choir-Organ" has been in the 19th.

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<sup>1</sup> In the new edition of "Grove" the sentence quoted is modified. Chair Organ is said to be an older form of Choir Organ. The suggestion as to the origin of the term is left unaltered.—A. G.

<sup>2</sup> I wish to acknowledge my indebtedness to my friends Mr. W. Barclay Squire (of the British Museum), and Drs. C. Harford Lloyd and J. Varley Roberts of Oxford for their kind assistance in this respect.

As regards the meaning of the phrase "chair-organ" (at least as used in the earlier portion of the 17th century) there can be no question. In the accounts for the building of the organ in King's College Chapel by the elder Dallam in 1605-6, mention is made of the "chayre organ" and the "greate organ" (when spoken of *separately*), but when they are referred to *jointly* they are spoken of as the "litle and greate organs"; and the same usage can also be established, though not with the same fascinating simplicity, from our College records. Neither does the etymological history of the word in this application appear so very obscure. The lexicographers (see Skeat, and the Oxford Dictionary *s.v.*) connect "char" or "chare" with "kehr" (as in Umkehr), meaning a "turn." A door is ajar, *i.e.*, "on char," when it is on the "turn." To do a "chare" or "chore" is to do a "turn" or "service" (see Antony and Cleopatra, IV. 15. 75 and V. 2. 231); and a "char-woman" is one who takes her turn of work, and especially of somewhat common necessary work. And so the "chayre-organ" is the ordinary "service" organ; the "little" organ for every-day use and for purposes of ordinary accompaniment, whilst the "great" organ was reserved for bigger "functions" and more ample effects. It would not be safe to assume that the "little" or "chaire-" organ always occupied what we may call the Cathedral position, presenting the aspect of a separate detached organ in front of the larger one, but it was a very useful arrangement as bringing it nearer to the singers whom it was intended to accompany; and as moreover it lent itself kindly to architectural and decorative effect, such a treatment of it would easily come to be regarded as normal and typical. It is then not improbable that the recognition of this use and position might (as the etymology of the word "chaire" came to be forgotten) lead to the introduction of the phrase "Choir Organ" as a substitute for it, not merely as being the organ which usually accompanied the Choir, but also as being locally nearest to the "Choir," perhaps in both senses of the word, choral and architectural. Few organs of those which have been built (originally) in this century possess a Choir-organ in this sense, *viz.*, an organ in a separate case in front of the Great Organ. The custom has been to include all the component parts of the instrument in one and the same case, and



when we speak of the Choir-Organ, the Solo-Organ, the Swell-Organ, the Pedal Organ, and the Great Organ, these are separate organs only in the sense of the pipes being ranged on separate sound-boards, and being in other mechanical respects separately constructed. Barring, however, the accident of its not being in a separate case, the modern "Choir-" Organ is still the legitimate successor of the old "Chaire-" Organ, both because it is so laid out as regards the scale and character of its contents as to be particularly serviceable for ordinary accompaniment, and because it occupies in relation to the Great Organ a comparatively humble and subordinate position.

The phrases "the orgaines" or "a pair of orgaines" so common in the 17th century probably did not bear reference to this division of the Organ into "Chayre-" and "Great-" Organ, but were due to the composite character of organ-structure in which, for every separate sound to be produced, a separate pipe had to be provided. The expression "a pair," as most readers will be aware, is one of *multitude*, not merely of duality, and stands for a "set" or "row." A "*pair* of stairs," for instance, would be "set" of steps or stairs, and a "pair of orgaines" probably means a "row" of organ pipes.

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## APPENDIX B.

LIST OF PAST ORGANISTS OF THE COLLEGE FROM THE  
RESTORATION.

[Where the day and month are given they indicate the date of the Conclusion making the appointment.]

George Loosemore	...	...		1660. <sup>1</sup>
Robert Wildbore	...	...	Sept. 11.	1682.
Charles Quarles	...	...	Dec. 26.	1688.
Charles Quarles }	...	...	Aug. 13.	1709. <sup>2</sup>
John Bowman }				
John Bowman...	..	...	July 4.	1717.
James Kent	...	...	June 25.	1731. <sup>3</sup>
Edward Salisbury	...	...	Nov. 20.	1738. <sup>4</sup>
William Tireman	...	...	July 27.	1741.
William Tireman }	...	...	Nov. 13.	1762. <sup>5</sup>
John Randall }				
William Tireman	...	...	June 11.	1768.

<sup>1</sup> There is no entry in the Senior Bursar's Accounts to Michaelmas 1659, or 1660 under the head of Organist. The first entry is in 1661 (for the Quarter ending Xmas 1660), but an entry in the Accounts for 1660 of "work done in y<sup>e</sup> Organ-loft by Mr. Loosemore's directions" shows that he must have been appointed before Michaelmas 1660.

<sup>2</sup> Conclusion:—"That John Bowman perform on the Organ for six months in the year alternately with Mr. Charles Quarles."

(A very charming minuet by Charles Quarles is included in Vincent Novello's "Select Organ Pieces."—A.G.).

<sup>3</sup> On December 17, 1730, "Mr. Eblyn was chosen Organist" on Mr. Bowman's death, but his name does not appear in the Accounts, and the Conclusion of June 25, 1731, appoints Mr. Kent to "the place of College Organist void by the death of Mr. Bowman." It would look therefore as if Mr. Eblyn never really received the appointment.

(Some of Kent's anthems were at one time very popular. He was appointed organist of Winchester Cathedral, Jan. 13, 1737, so perhaps Mr. Jones filled the gap until Mr. Salisbury's appointment.—A.G.).

<sup>4</sup> There is a similar entry to that last-quoted appointing a Mr. Jones to succeed Mr. Kent, but nothing seems to have come of it.

<sup>5</sup> Dr. Randall was appointed to share duties with Mr. Tireman. This arrangement was abolished after five and a half years.

(John Randall was Professor of Music in the University, 1755—99. At the present time he is only known by two chants, but he also set Gray's Ode for the Installation of the Duke of Grafton as Chancellor—not at all to the poet's satisfaction.—A.G.).

John Randall ... ..	April 1.	1777.
John Clarke-Whitfeld ...		1799. <sup>6</sup>
William Beale ... ..	Nov. 1.	1820. <sup>7</sup>
Samuel Matthews ... ..	Dec. 29.	1821.
Thomas Attwood Walmisley ..	Feb. 1.	1833.
John Larkin Hopkins ...	Mar. 31.	1856. <sup>8</sup>
Charles Villiers Stanford ...	Feb. 21.	1874. <sup>9</sup>

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<sup>6</sup> Clarke-Whitfeld was Professor of Music in the University, 1821—36. He was composer of meritorious anthems, particularly "Hear, O Thou Shepherd" and "In Jewry is God known." He was the editor of many arrangements of Handel, and also particularly of a very interesting volume, "The Beauties of Purcell.—(A.G.).

<sup>7</sup> Wm. Beale is known as the composer of the madrigal "Awake sweet Muse" and "Come let us join the roundelay.—(A.G.).

<sup>8</sup> Dr. Hopkins died April 25, 1873.

<sup>9</sup> Sir Chas. Stanford resigned at Christmas, 1892.

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## APPENDIX C.

The singing men of Trinity included in the eighteenth century Thomas Mace, the author of the well-known work "Music's Monument." He does not in this work allude to the College or its music, but as he was born in Cambridge, is known to have lived there in 1636, describes himself on the title page of his book as "Clerk of Trinity College," and states in his work (1676) that he has sung for over fifty years, it is probable that his term of service to the College was a long one. He is supposed to have lived until 1709. Mace has claims to have originated the idea of the "Swell." In the place of what he calls a "Table Organ" the pipes are enclosed in a box, panels of which could be opened at pleasure. His portrait is in the Small Combination Room. In later years such celebrities as Mr. Edward Lloyd and Mr. Barton McGuckin have been included among the "Clerici Seculares."

A. G.

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